

US EPA ARCHIVE DOCUMENT



Placer County's Biomass Program Use of Forest Residuals

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Why is Placer County Involved in Biomass Conversion?

- History of increasing forest fires, increasing open burn piles, increasing air emissions, canceling of fire insurance, respiratory related health issues
- Board Of Supervisors Direction
 - Reduce Catastrophic Fire Conditions
 - Improve Regional Air Quality
 - Provide Long Term Solution for Forest Waste
 - Create Employment Opportunities
- Develop Strategic Plan (*adopted in 2007*)





Options Investigated

- Biomass recovery throughout forest
 - Can it be accomplished?
 - Can it be more streamlined to reduce cost?
 - Can it be sustainable?
- Biomass to energy conversion projects
 - What will work within 5 years,
 - 10 years?
- Public/Private Agencies for Solution
 - Will cost sharing make it economically feasible?
 - Will it provide enough energy?
 - Will it provide jobs/economic growth?





Program Success

- Biomass Recovery
 - Community material capture/culture change
 - Significant projects to remove potential burn piles
 - Lake Tahoe Region
 - Foresthill (American River) Region
 - Significant reduction in air emissions to the region



- Biomass to Energy Conversion Projects (*public/private partnerships*)
 - DOE Lake Tahoe Region biomass to electricity (CHP)
 - CEC Placer County biomass to vehicle fuel (CNG)



What Do Results Mean?

- US Environmental Protection Agency Recognizes Outstanding & Innovative Efforts to Achieve Cleaner Air
 - 2010 Clean Air Excellence Award for

Forest Resource Sustainability in Placer County

Placer County achieved emission reductions of 90 tons of fine particulate matter, 23 tons of nitrogen oxides, 70 tons of volatile organics, 900 tons of carbon monoxide and over 6,000 tons of greenhouse gases. We have processed and transported 15,000 BDT's of waste to biomass energy facilities which has fueled the generation of 15,000 MW hours of renewable electricity, enough to power more than 1,500 homes for one year.

This Project was chosen "for its impact, innovation and replicability"





Who are the Supporting Agencies?





Lake Tahoe Region 2MW Biomass to Energy Facility (Proposed to be built by 2015)

Regulatory

Air - Local
NEPA - EPA
CEQA - ARB
PPA - CPUC
AB32 – CEC

Economics

Fuel Radius
Public/Private
Cost Sharing
Carbon future
Tax Breaks
Bundled Power & REC's
Natural Gas Influence



VIEWPOINT 1 VISUAL SIMULATION

CABIN CREEK BIO MASS FACILITY
PLACER COUNTY, CALIFORNIA

WOOD ROGERS
DEVELOPMENT INNOVATIVE DESIGN SOLUTIONS
3301 C Street, Bldg. 100-B Tel: 916.341.7760
Sacramento, CA 95816 Fax: 916.341.7767

Transportation

Grind in Field
Short Haul
Loss of
Infrastructure

Technical

Efficiency
Emission
Control
Operating
Conditions
Storage
Competence

Other Issues

Public Perception & Litigation



Placer County Biomass to Vehicle Fuel Facility (Investigation & Prototype)

- Conversion (Biomass) into higher value vehicle fuel (renewable CNG)
- Needs industrial zoned land near natural gas pipeline for pipeline injection purposes
- New, emerging conversion technology funded in part by CA Energy Commission Alternative and Renewable Fuels Program (AB 118)
- Small, portable demonstration unit in Placer County early 2013
- Potentially followed by up to 30 TPD facility by 2015
- Much larger facility (up to 750 TPD) also currently being evaluated



Questions/Comments

<http://www.placer.ca.gov/Departments/CommunityDevelopment/Planning/Biomass.aspx>

